

# Editorial JOURNAL BOX

GOOD ON YER MATE!

From the letters I have received the last editorial hit a few raw spots. I must be alone in thinking that if I am asked to pay \$50 to \$75 or more for a model, then I expect a faithful reproduction, not a reasonable facsimile. I realise that the models are built to a price and expect to add minor details, but I do not expect to have to rework or alter the model or parts of it. After all, even I can produce reasonable facsimilies.

Models and modellers come in all sizes and modellers come from all walks of life. People model exact likenesses, reasonable facsimilies, or just please themselves. A few so called modellers just copy commercial products and I believe that some even sell their copies.

No wonder the Australian Producers are slowly going out of business. It is bad enough to try and commercially produce Australian Models for a limited market, without having to worry about "pirates" copying them and underselling the originals.

On another subject - death duties and probate. This was again brought to my mind on the sudden death of John Sneddon, a past Victorian Branch Secretary. Several issues ago Broughton continued on page 97.

## COVER PHOTO:

Return trip from Eaglehawk arriving at Bendigo - December, 1970.

Photo by Jack Parker.

## VOLUME 21

7/72  
Issue 99

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# THE SECRETARY'S DESK



At the July C.O.M. meeting membership stood at 623, this is made up from 451 renewals, 166 new members and six auxiliary. Just how many renewals there will be in September is hard to guess.

To those who have not renewed in the period of grace allowed, a letter is sent from the President, as a reminder and also a request to let the committee know the reason for not wishing to renew, if that is the case. Some reply, many do not and that leaves us in the dark as to our shortcomings.

Our Editor endeavours to make each issue of Journal as balanced as possible, from the material on hand. If anyone has anything to get off their chest, if it is in relation to advertising contact Mal Baker, Journal material to Rex Little, fees and changes of address to June Dunn, registration of model clubs to Graham Watson in W. Aust. other matters to the Fed. Sec. or State Rep. whose name is in issue 96 of Journal.

Also a reminder about the various model competitions, held each year there must be one section YOU could enter.

We often have ex members rejoin after some period has elapsed. Only the current subscription rate applies and no joining fee is necessary, so they do not receive another issue of initial literature, as some have expected. Some time ago I did mention that our Standards had been updated and copies are available on request, a few have done so.

One of our aims is to improve the standards of modelling and the activities run by Howard Armstrong in Melbourne and Bob Gallagher in Sydney are helping to bring this about. Some are finding they can cut out metal shapes and solder together in the form of a vehicle (I did not mention tin snips Rick), there must be others with dormant talents, which could come to light by joining in these sessions.

The Federal Annual General Meeting will be held in the near future and I hope all members, able to attend, will make every effort to do so.

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## COMPETITIONS

The TIM DUNLOP CUP - best scratch-built Locomotive (Steam, Diesel or Electric). Motors, wheels and small fittings allowed.

N.S.W. Branch Cup - scratch-built passenger vehicle.

Keith Wilcox Cup - scratch-built goods vehicle.

Vic. Branch Cup - Rolling stock kit conversion.

Federal C.O.M. - Locomotive kit conversion.

Candemah Valley - Lineside scenic construction.

Closing date for all competitions is the 31st January, 1973. All entries must be with the Federal Secretary by this date.



AUSTRALIAN MODEL RAILWAY ASSOCIATION - FEDERAL COMMITTEE  
STATEMENT OF RECEIPTS AND EXPENDITURE  
FOR THE YEAR ENDED 30TH JUNE 1972.

<u>RECEIPTS</u>		<u>EXPENDITURE</u>	
Cash at bank, 30/6/71	\$481.09	Printing Journal	\$855.00
Cash on hand, 30/6/71	65.00	Postage of Journal	122.32
New subscriptions	266.60	Journal expenses	342.93
Renewal of subscriptions	886.00	Stationery	232.86
Subscriptions to Journal	980.10	General postage	132.34
Joining fees	171.00	Trophies and engraving of trophies	39.90
Sale of badges and accessories	24.50	Bank charges	2.58
Donations	42.20	Refund to Interstate Branches	86.40
Advertising in Journal	730.55	Purchase of badges	74.34
Bank interest	39.74	Refund of overpaid subscription	1.00
Sale, back copies of Journal	12.57	Telephone book entry	4.00
Postage, back copies of Journal	48	1972 Easter Convention expenses	5.35
Overpaid subscription	1.00	C.O.M. property insurance	13.97
		A.M.R.A. booklet (N.S.W. Branch)	42.00
		Subscription to "Green over Red"	2.40
		C.O.M. expenses Vic. Branch Exhibition	12.50
		Transferred to Reserve Account	300.00
		Cash at bank, 30/6/72	1355.94
		Cash on hand, 30/6/72	75.00
	<hr/>		<hr/>
	\$3,700.83		\$3,700.83

28th July 1972.

Robert W. Gorrell, A.C.A.  
HONORARY AUDITOR.



# Basic Sidings & Goods Train Running

Clearing breakdowns - Part 5.

by E.G. WATSON.

During actual prototype train running breakdowns do occur because of engine failure, derailments, stalling, brake failure, hot boxes, line washed away, landslides and so on. The procedures to be followed are outlined, (in Victoria) in the Departmental Rules and Regulations and General Appendix. They are too long to detail here, covering as they do Electric Staff (single line) double line and staff and tickets.

In this article single line will be considered plus working "single line over double line during repairs or obstruction". The train movements will be outlined but the movements of the train crew, staff and signalling will only be dealt with briefly, otherwise we would need to publish both books referred to above.

Several points need to be noted.

The object of the electric staff system on single line working is to prevent more than one train being in the section between any two staff stations at the same time. Also if there is no train in the section, to permit a train being started into the section. This is accomplished by having a staff instrument at each end of the section. It can only be operated with the co-operation of the signalman at either end and only one staff may be withdrawn.

If a train starts from "A", Fig. 1. the staff instruments would be operated and a staff withdrawn. These are con-

Staff	Staff	Staff
Station A	Station B	Station C
(1)	(1) (2)	(2) (3)

Fig. 2.

structed, coloured and numbered for each section and the staff for machines (1) would not fit in machines (2), (2) etc. This procedure is followed by each station. At "A" the staff is given to the driver, who hands it in at "B" and receives staff for section B-C. The staff from A is returned to (1) instrument at "B", the signalling procedure is followed and depending on the direction of the next train "A" or "B" may withdraw another staff for section A-B or B-A.

What happens when the train is disabled in the section and cannot move?

We are closest to "B" Fig. 2, so we give the fireman the staff and an order stating the position of the train, its load, the nature of breakdown and a statement that the train will not be moved until the relief arrives.

The fireman arrives at "B" and confers with the signalman, giving him the order and the staff. The staff is locked up in a safe place. "B" does not have an engine, but "C" does. A staff for C-B would be obtained in the normal way and the engine signalled normally. At "B" the driver would be shown the staff for B-A which is then returned to the fireman. He would

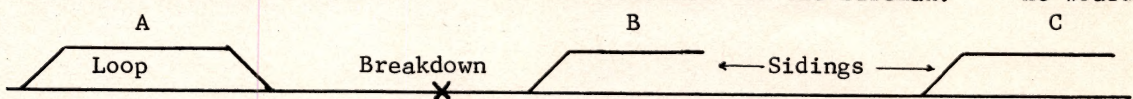


Fig. 2.



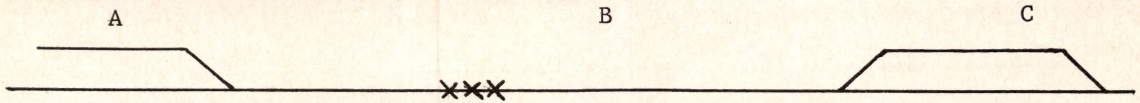


Fig. 3.

also be given an order permitting him to enter the section B-A.

The reason for the absolute guarantee that the train would not be moved becomes clear. The driver fiddles around a bit and gets the engine going. He moves off. He is going around a bend and the relief engine enters the bend from the other end and crunch.

Looking at the diagram it will be seen that the disabled train cannot be taken to "B" without our losing the use of our relief engine, so it is pushed back to "A", into the loop.

The staff and orders are given to the signalman at "A", the staff is returned to the instrument and the "train cancelled" signal is sent. Normal working can then be resumed.

Variations of this are introduced by the siding accommodation available and location of the relief engine, for example:

Relief engine at "A" Fig 3, siding not available.

Here the staff etc. would be taken to "A" and an order given to the driver of the relief engine permitting him to enter the section. The train would then be pushed to "B" and on arrival complete would be "cleared". A staff for B-C obtained and the train pushed into the loop at "C" and "cleared".

Other variations are possible, but the same principles apply. Remember we are not detailing crew or signalling movements.

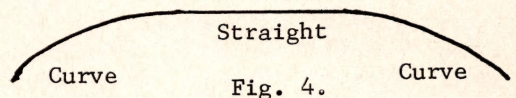
To translate this into model railway operation presents one difficulty - power supply. If you have followed

the article(s) on shunting and sidings it would be simple to arrange a siding arrangement to suit your layout. If we place two engines on the track and operate the circuit control unit, they will move in the same direction. We need one engine stationary.

There is a suitable method to overcome this. It has one limitation. Unless repeated elsewhere on the track, we have our "break down" at the same spot each time. However as we don't want too many break-downs we will only have one while demonstrating to our visitors. The equipment referred to is Triang and should not cost more than \$4.00 to \$5.00.

First look at your layout. Select the sidings you wish to use. For effect they should be some distance apart. We need somewhere for the relief engine and somewhere for the disabled train. A loop isn't essential as we can arrange it so that the train is pushed into a siding.

Now decide on the length of the train to "break down" taking into consideration the siding it is to be placed in. Next select the "spot" for the breakdown. This must be on a straight, or if on a curve be like mine. (Fig. 4.)

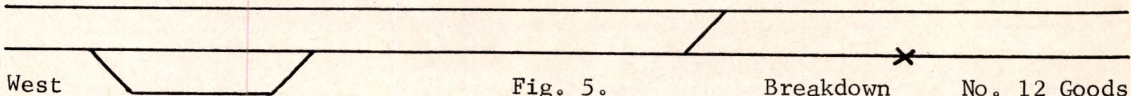


At this spot insert a section of isolating track. The track is now isolated. Power clips must be inserted so that both sides of our isolating track are powered. Next connect the isolating track to the lever frame section on your "frame". If you aren't familiar with isolating track and have



No. 33 Goods

East



a "circle" you will find if you run around an engine that your circle is apparently no different than before. A train's length to the rear of the now existing track insert another one and your train will be isolated. This one is not connected up to the "frame"

The couplers on the front of the disabled train's engine must be as close as possible to the point where the power stops. If you cannot see it put in a marker. I'm a great believer in my own idea - golf tees, using different colours for different purposes. We must have the engine as close as possible to this point.

#### To clear the break down.

First move the train to "break down" to the exact spot as described above. Isolating switch "on". Make sure you now put the switch "off". Now complete arrangements to bring in the relief engine. As it approaches the break down slow down or stop. Move the relief engine to the breakdown and couple up. Power "on" and away we go.

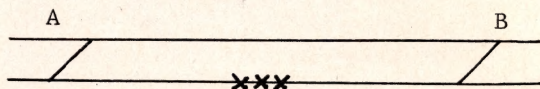
It took me 5 years to figure that out and you've got it for free.

For normal train running we would need to leave the power "on" for the isolated section. Applied to a double line, we still need the isolated section. I will describe two double line break downs and leave the rest to your ingenuity.

In Fig. 5 No. 12 goods breaks down, No. 33 goods is approaching. We stop No. 33 after conferring with control. The engine is cut off and runs to main Up line via crossover. Sets back to the break down and pulls it into loop.

Leaves loop via west end, rejoins train and departs.

A relief engine from station to west comes on down line via crossover to Up, into the loop via west end and hauls train away for repairs etc.



In Fig.6 train breaks down at XXX. The two crossovers could be miles apart. We are now faced with that dreaded situation - working a double line over a single line during repairs or obstruction. Basically it is simple. We have four stations say:

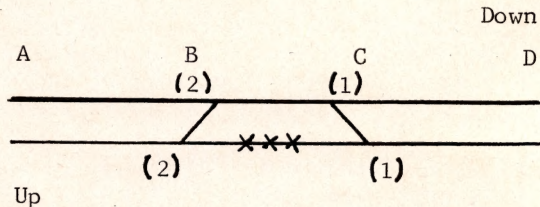


Fig. 7.

For simplicity's sake (and to spare my brain) we put the break down between B & C. We work normal A-B C-D. At B a pilotman takes over (he's the "staff" mentioned earlier) and work single line BC. So that the train travels on the Up line to points (1) on the Down line to points (2) then to the Up. No train may proceed between B-C without the pilotman being present.

Why is it to be dreaded. Well that's a matter of signalling pilotmen, hand signalmen etc. etc. and we can do without that. If you must have it do a safe working course.



# Water Stations

by G. R. Watson.

Modellers can find much useful information about how their models and railroads should be built, positioned and operated, by referring to railroad engineering textbooks. An example is this information on water stations, summarised from a section of a chapter headed "Miscellaneous Structures and Accessories - Water Stations", in a book titled the "I.C.S. Reference Library", dealing with "Railroad Engineering - Highways - Paving - City Surveying", published in New York in 1907. Although the information is now obsolete for the prototype, a lot of the information is relevant to model railroads, and the application of it will result in more realistic models and layouts.

Water Stations are points along a railroad where engines may stop to take in water. On railroads with light traffic, water stations at every fifteen miles will meet every requirement, while roads with a heavy traffic and frequent trains may require them at every five or six miles.

Water Stations usually consist of large wooden tubs placed on strong frameworks, supported by heavy pillars resting on foundations of masonry. These tubs are generally circular in form, the bottom diameter being a few inches larger than the top, so iron hoops may be driven tight. Railroad water tanks hold from 20,000 to 40,000 gallons. A common size is sixteen feet in diameter by sixteen feet high, and holding about 21,000 gallons. The bottom of the tank should be from ten to twelve feet above the tops of the rails. It is common practice to enclose the tank in a framed structure, the foundations and posts forming the first storey. Where water is pumped,

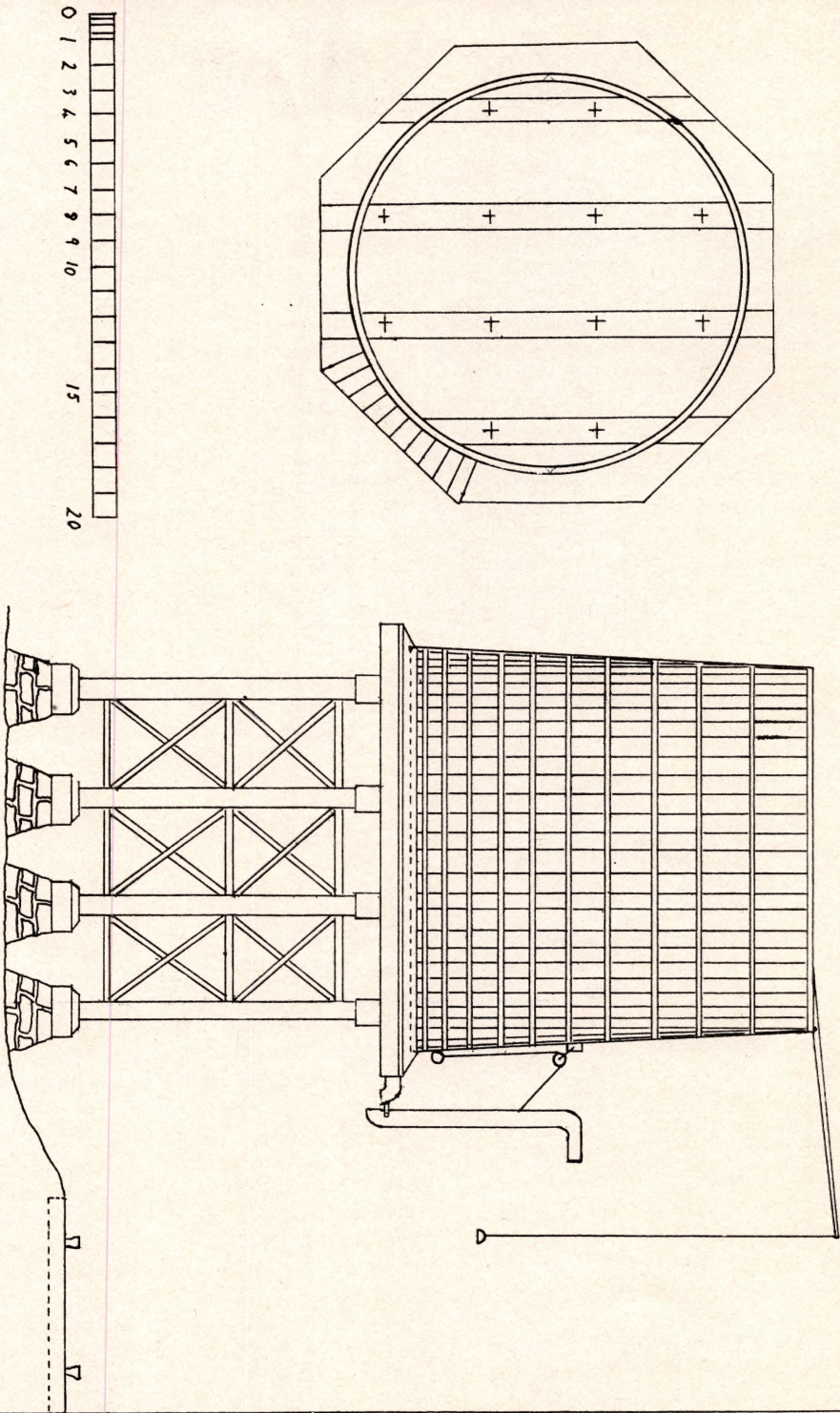
the first storey is used as a pumping house and a fire is usually maintained in winter to prevent the water from freezing.

The twelve posts are 10" x 10" and support four 12" x 12" caps. The deck is composed of two sets of timbers laid at right angles to each other. The first set, laid directly on, and at right angles to the caps, are 12" x 3". These timbers are spaced every 12", while the second set are 4" x 6" and are spaced at 19", centre to centre. The deck timbers are in direct contact with the bottom of the tank. The deck is usually made octagonal in form, and in case the tank is not covered with a roof, project far enough from the tank to protect the foundations and timber supports from the weather.

A water tank has three pipes - an inlet pipe, an overflow pipe, and a discharge pipe. The discharge pipe is 7 or 8 inches in diameter, 8 to 10 feet long and is hinged at the end that joins the tank. When taking water, the discharge pipe is lowered, the engineman then pulls down on the rope attached to the lever. This action raises the valve and allows water to flow from the tank into the tender.

The diagram has been redrawn from the book, in HO scale, omitting several minor details which would be extremely difficult to model. Also omitted from the drawing is the deck framework, as this is completely enclosed in a deck covering. The crosses on the plan view show the position of the posts, while the dotted line on the side view indicates the bottom of the tank, which is covered by the decking.

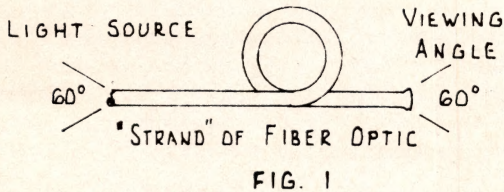






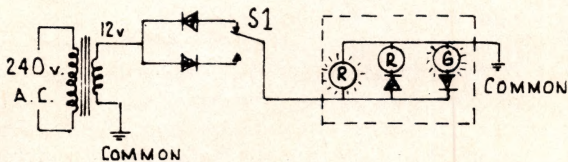
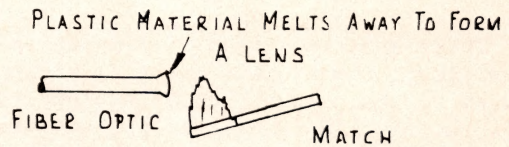
# GUIDED LIGHT

One of the latest developments of interest to modellers in the scientific field, is a branch under the general heading of Fibre Optics. This refers to a method of guiding light by using what looks like a strand of opaque plastic. This strand actually consists of a large number of very small diameter fibres in a random lengthways arrangement with a different type of plastic as an outer coating. Light is transmitted, or guided, from end to end. Because of differences in the refractive index of the fibres and the coating, total internal reflection results and no light escapes or enters through the sides of the strand. The light intensity is reduced by about 60 percent along a 6 foot length of the material. The angle of light acceptance and also the viewing angle at the ends of the strand is about 30 degrees either side of the axis. (Fig.1.)

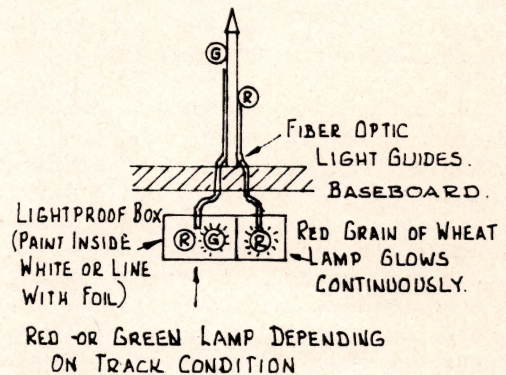


The strands can be curved to any radius down to a minimum of about 5 times their diameter i.e. 0.03 inch diameter strand can be curved to a radius of 0.15 inch. I have found that care must be taken, and it would be safer to allow as large a radius as possible. The material doesn't physically break, but the strain placed on the fibres causes a severe loss in the amount of light transmitted. Any place that a strand must be curved around a sharp edge use a grommet or padding of some sort. The plastic coating from hookup wire is ideal for this purpose.

To get a better effect when viewing light transmitted along the strand I



S1 CAN BE CHANGEOVER CONTACT ON RELAY ETC WITH S1 IN ALTERNATE POSITION RED LAMP GLOWS AND GREEN LAMP GOES OUT



SUGGESTED METHOD FOR USING FIBER OPTIC TO MODEL V.R. SEARCHLIGHT SIGNAL.



form a "lens" on the end. This is done by holding a light match or hot soldering iron near the end of a strand (Fig. II.)

As I model in "N" gauge, the first idea I had was to use this material for signals. It could also be used as marker lights or head lights in locos or as illuminated advertising signs. (Fig. III.)

The light guide is marketed under the name Fiber Optics (yes American

spelling) in Melbourne by S.T.A. Electronics, 392 Centre Road, Bentleigh, 3204, in the following sizes:

0.010" diameter 60 x 6 ft. lengths \$5.37  
 0.020" diameter 16 x 6 ft. lengths \$5.37  
 0.030" diameter 6 x 6 ft. lengths \$5.75  
 0.045" diameter 6 x 6 ft lengths \$8.27

There may be other firms selling this or a similar product, if there are I would like to know, especially if they are cheaper.

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## Private industries

One of the easiest ways to increase traffic on your line, without too much extra expenditure, is to add a private siding, leading to an industry. With the decentralization schemes of the State governments, even a small branch line can have an industry.

There are two types of private industries; those served by a siding owned by the company and maintained by the railway and a public siding besides which the industry is established. A private siding normally serves only one industry and is on the company's land. It is separated from the rest of the railway by a gate. The company can build any loading or unloading facilities it needs, as long as placement of the wagons is not hindered.

A public siding is a different matter. In this case, the land beside the track is rented to different industries. They may build any installations they want on this land as long as it has something to do with transport by rail. For instance, a company cannot build a factory or warehouse on their rented land if they transport the product by road. Several different industries may be located on the same siding.

by A. R. Brown.

A private siding is a good ploy to fill in corners and awkward spots of the layout. A short spur can be led off the mainline to an industry. If space is at a premium, then it can be a worthy and interesting addition to any layout. It also produces more work for the yard shunter as he has to place and collect wagons from the sidings. Extra wagons are needed to cater for the increased traffic, and in some cases special wagons are used, and special trains run.

A private industry has other benefits. An industry will employ people, and this gives scope for a more intensive passenger service to bring workers to and from work. If you take the situation a stage further, one successful industry may encourage others and generate growth in the town, which leads to a more intensive service all round. All in all a private siding is a good proposition, so why not stick one on your layout?

NOTE: Eric Watson has written a treatise on public sidings, as part of his series of articles.

EDITOR.



# AUSTRALIAN WAYSIDE STATIONS

by Ern Raddatz.

Before we begin this discussion on Australian wayside stations, modellers should realise that it is essential that they decide at the outset what the maximum length their trains shall be as this is an important factor in the design of all layouts. In theory the length is limited to the greatest load capable of being hauled by the most powerful locomotive owned, or contemplated, up the maximum grade the layout is likely to have. But, unfortunately, this is only likely to happen on the largest of outdoor layouts and for indoor work some other form of limitation must be adopted, especially if point-to-point operation is being contemplated. A modern model locomotive may be capable of hauling up to twenty bogie coaches or the equivalent in four wheeled goods stock and this, in the case of point-to-point layouts, would need terminal stations of such length as to leave little space in between for running lines.

From a study of Australian railways it would seem that a fairly representative length of train would be a locomotive and six bogie carriages or twelve four wheeled goods wagons. This gives a nice looking train and brings the length of station yards down to workable limits. Assuming that the longest steam engine to be used is equal to  $1\frac{1}{2}$  times a single bogie carriage, and the average length of such a carriage is seventy feet (in

the prototype) the length of such a train would be close to six feet in H0.

Although there is actually no standard arrangement of tracks in wayside stations, each railway follows certain basic arrangements which must be observed if the model is to resemble the real thing.

Figure 1. shows a typical country station on single line equipped with a platform road, passing loop and goods siding. This arrangement is fairly common and is to be found in all states, especially Victoria and an example is to be found also at Hanson on the S.A.R. The passenger platform should be made the six (or fixed maximum) car lengths, but the loop is to be arranged so that its standing room in the clear will equal one engine plus six cars plus one engine, which will permit a train to take the loop and be able to cross a train in the platform facing in either direction without the latter having to be moved to clear the movement. This matter is often overlooked in model railway work. The position of the goods siding, its length, the selection of extra facilities are merely a matter of determination by the modeller, as it is not necessary for the goods siding to be even opposite the platform or on the side

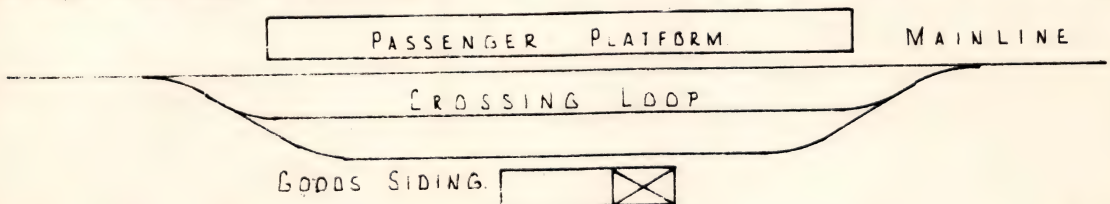


Figure 1.



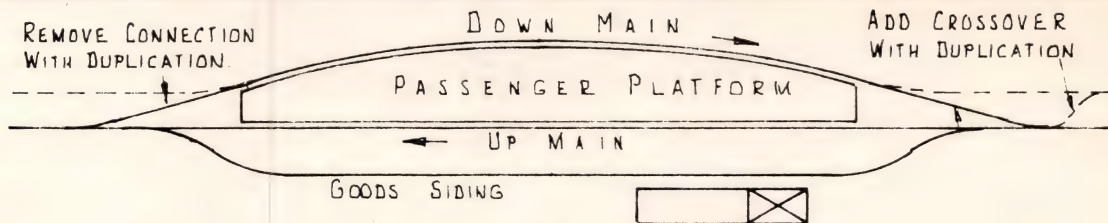


Figure 2.

of the line shown. It is suggested that much thought be given to the goods siding arrangements. The American modeller makes a great feature of his freight operation as much interesting working can be experienced by giving prominence to goods train operation. It is noticeable that many local model layouts put the stress on passenger operation and almost entirely neglect the goods side, which, coupled with a tendency towards building car sets with consequent shuttle service, seem likely to deteriorate into a monotonous tramway style of working.

A variation of this layout can be found in Figure 3 which shows a typical country station on single line capable of crossing two passenger trains at an island platform arranged for up and down working. I am told that this layout is common in New South Wales and is also to be found at Wasleys on the S.A.R. In this case the goods siding is placed close to the main line as it is not likely to need alteration in future. If double track is needed in the future it can be arranged by making the alterations shown by the dotted lines

or the design could be used to suit a double line from the outset.

Figure 3. follows generally the idea behind figure 2. except that side platforms are used instead of the island platforms. Care should be taken, however, that the engine length is preserved clear of the opposing mainline at the left-hand end of the up platform and the right hand end of the down platform. The goods siding points may be allowed to foul this engine length without any harm being done. An example of this layout is to be found at Roseworthy on the S.A.R. and, like the other layouts, is to be seen in other states as well.

If any station layout could be regarded as standard it is that shown in figure 4. which is, without doubt, the most common arrangement on the S.A.R. In this case the centre road is the through main line and the passenger platform is placed on the loop line. Examples of this are to be found at Riverton, Burra, Tarlee, Stockport, Saddleworth, Manoora, Mintaro, Farrels Flat, Riddell and just about any other S.A.R. country station you care to mention. It has the ad-

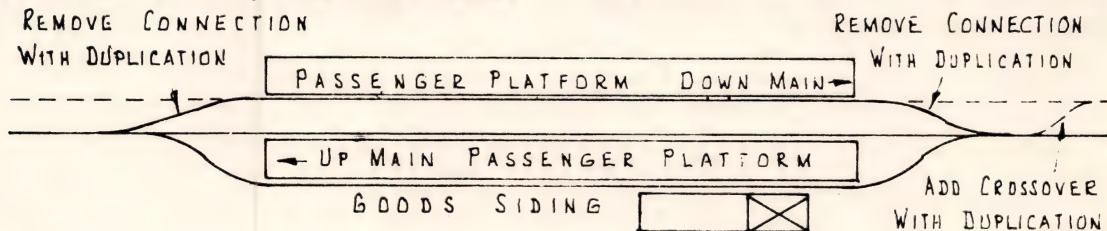


Figure 3.



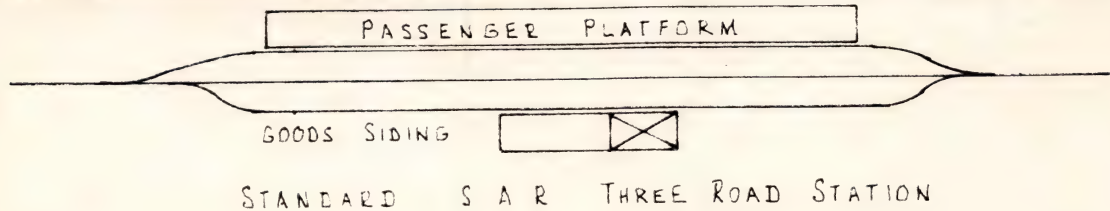


Figure 4.

vantage in model work that three way points can be used if necessary to save space. Care must be taken to ensure sufficient length be left at each end of the platform road so train crosses may be made without any unnecessary train movements.

These layouts are, of course, only basic and other roads and sidings are added as and when required and include cattle and sheep sidings, mileage roads, silo roads and so forth.

These layouts can also be used as small termini on single line if an engine length is left at the dead-end so that an engine may run around its train. Never, but never, be tempted to put a turn-table here instead of this lead, it is simply "not done". If tender engines are used, as they most probably will be, a turntable is

imperative and additional locomotive facilities may be added to taste. The connection to "loco", however, should never be arranged to intrude on the standing room of either mainline, or loop as it is desirable that engines may enter or leave "loco" freely and run round a train standing in either road. There are many examples in the prototype where this rule is broken, much to the grief of the staff concerned, but the modeller should endeavour to avoid the breaking of this rule.

The foregoing should be of interest to modellers wishing to have their layouts resemble the prototype, but they are advised to take the trouble to study the station layouts of the particular state system they favour and to follow their methods as closely as space will allow.

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## AN ELECTRICAL TESTER

There comes a time, planned or otherwise, when the Railway Modeller has to come to grips with the electrical wiring of the railway layout. The average modeller is not a qualified electrician, genius, or what have you, except for a few exceptions and they can design their own tester.

The average layout electricals usually involve both or either of the following power supplies.

1. Twelve volts D.C. controlled or uncontrolled.

by S. Dogger.

2. 17 volts A.C. for point motors, etc.

The modeller is not really concerned to any great extent what these supplies are, except to be able to identify positive, negative, D.C. as distinct from A.C., and the action of switches, controllers, and the other items of similar nature.

A radio multimeter is a useful item for the situations likely to be met,



however the cost, complexity and liability to damage make the possession and use a possibly expensive experience.

A simple tester can be made from a car lamp and a silicon diode. The method is as follows:

Ascertain the usual current taken by your loco(s). We'll say it is about 1 amp. At a supply of 12 volts and a current of one amp the wattage is 12 watts, i.e. volts x amps. Now obtain a car stop lamp or similar from your garage of 12 volts, 12 or 15 watts. Now obtain from a radio parts store an automotive silicon diode, cost about 90 cents to \$1. While at the radio store obtain a pair of 'alligator' clips one red, one black; these are about 10 cents each. You now have all the pieces. Wire the red clip to the + sign of the diode or the body if it has red numbering. If the numbering is black use the black clip. Then wire or solder the wire of the diode to the lamp body. Wire the lamp contact to the remaining clip. The overall length of the wire should be sufficient to suit your layout. I've found that 3 to 4 feet is a good length.

Before going any further, try out the tester on a known good 12 volt supply which is identified by + and - signs, by clipping red clip to positive (+), black clip to (-). The lamp should glow brightly. Reverse the clips (that is red to negative) the lamp should not glow. If it does the opposite, then reverse either the diode or the clips. It should now be apparent that if the lamp glows then the red clip indicates positive and the black clip negative.

To use the tester could be another item, however a few simple rules will indicate its usefulness.

1. Try out the unit as above, the glow will give an indication of the voltage, i.e. dull is low etc.

2. The clips will give an indication if reversed, which is positive and which is negative.

3. Now if the clips are placed on A.C., which has no positive or negative, then the lamp will glow with the clips either way around. This means that A.C. can be identified from D.C.

4. By connecting the tester across the track, i.e. rail to clip, rail to clip then the action of the controller and reverser can be checked out.

5. To trace out wiring to track section switches etc. clip red to supply positive or black to supply negative and search wiring or track for lamp glow.

6. A simple deduction will show that if the lamp doesn't glow fully on a track section, but glows on the controller's outlet then contact resistance is probably too high to operate the lamp and the loco. When looking for a loss of power such as a dirty point tongue, broken wire etc., start with the tester nearest to the supply and work outwards to the end of the last section. To save time it often helps to go halfway and divide the wiring in half.

When looking for a short circuit, usually indicated quite clearly on the controller or cut-out, remove the positive track lead from the controller, clip the red clip to the controller positive, the black clip to the feed wire and the lamp will glow via the short circuit. You can then proceed to locate same by systematically removing wires and replacing them until the lamp is extinguished. The lamp if selected correctly should not enable you under this system to damage any electricals. When looking for a short circuit, many sections and circuits can be switched off, one by one, making the location of the fault easier.

Careful practice and some clear thinking will soon show how useful the device can be.



In conclusion, if you fit the lamp and diode on a small strong box with a hole of about  $\frac{1}{4}$ " to  $\frac{3}{8}$ " adjacent to the lamp filament, the lamp wont break if you drop it and it wont blind you everytime it lights up. Good testing.

\*\*\*\*\*

### IT TOOK ONLY EIGHT YEARS, THAT ALL

Away back in 1964 I submitted a sad, sad story which appeared in Journal Vol. 14, No. 4. It was about how my luv-er-ly track ballast was destroyed when mice ate the poppy seed that I had used. The story ended with an appeal to members for suggestions of a type of ballast which would upset the little - er, mice.

Well chaps, you can stop looking now, for I may have found the answer. You see I was sprinkling coloured sawdust around for a grass effect when I noticed a packet of "Defender" snail killer on the shelf. There it was;

\*\*\*\*\*



The Editor,  
AMRA Journal.

Dear Sir,

I was most interested to read the comments of "coarse" and "fine" scale adherants in Pop Valve (Jan/Feb. Journal).

I do not wish to enter the controversy, except to offer to members the experience of the Melbourne Model Railway Society in this area.

This club started with a huge rent bill (measured in amateur terms) and to meet this bill, we were committed to retaining members and/or recruiting

green, granular and POISON. I sprinkled some onto the glue in several places and it has dried out quite well.

Let it now be known that mice may now graze on my trackside pasture if they so desire. May they get a king size belly-ache!

ALLAN WINSLADE.

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## FOR READER'S LETTERS

new ones. All standards must be high to do this - clubroom location - administration - discipline - facilities and one of the most important - track standards.

We spent a lot of time determining which standards and which points to choose from. Our "mathematician" (6th grade!) surprisingly came up with the answers that:

- (a) there is a set of dimensions that: will satisfactorily run all commonly used wheels, and
- (b) there were no points commercially available which would meet these standards with adequate quality.



Thus we made the obvious decision, to make our own (and of course save a fortune).

First experiments were with "rubber" type adhesives, which were quite OK. Then our construction engineer of the time, Norm Street, being an electronics man, invented the idea of soldering to sleepers made from strips of circuit board - copper laminate bonded to insulating board. This idea was also "invented" by several overseas writers some years later and is still very popular.

Our specifications were:

1. Must run all commercially available wheels with a high standard of performance.
2. Must be able to use various types of points - simple turnout - Y points - slips - crossovers.
3. No dead frogs.
4. High reliability switching of power to the set route.
5. Must deaden the "non set" route.

The way we met these specifications:

1. We set a new "MMRS" standard of 1.5mm gap for the flangeways at the frog and 1.35mm at the check rails.
2. We made all required configurations ourselves, or I should say, that one member, Bill St. Aubin, makes them for us, a mighty task for anyone to take on.
3. We use rail throughout adopting the same basic circuit as Shinohara.
4. We use the silver contacts of the P.M.G. relay point motors to switch power to the frog.
5. The Shinohara type circuit automatically deadens the "wrong" road.

The Canberra club have one of our points currently on extensive trial and I know what the answer must be.

If any Pop Vlave contributor wants an argument, they have seven years successful operation averaging three nights a week hammering to disprove.

Seriously though, we know that we have the answer and freely offer it to any club or member.

ALAN DOWEL.

Dear Sir,

As a recently rejoined member of AMRA, after approximately nine years away from the Association, it was quite pleasant to see the changes in the Journal.

The printed Journal is certainly a long way from the old duplicated efforts of yesterday. The high quality glazed paper and clear printing make the Journal a first class publication and photographs are a great help in construction articles.

As an old hand at working on Journal I feel you and the others mentioned in the credits are to be congratulated.

J.H. FAINGES.

Dear Sir,

Bob Gallagher's letter in the last Journal was a very interesting one and it prompts me to ask what has the S.C.M.R.A. done to him to warrant the sentiment expressed in his letter?

Bob is lucky that he lives in N.S.W. and not Queensland. He states that AMRA Queensland Branch is in the process of obtaining its own clubrooms. This is so, but we would not be in a position to do this, due to the small number of members in Queensland, without the co-operation and help of the



S.C.M.R.A. (Sunshine Division). The Queensland Branch by itself could not afford clubrooms, so at least one State Branch has something to gain from amalgamation.

In talks we have had in Queensland among the members of the two societies everyone was unanimous that if amalgamation did happen then the magazines of both societies, i.e. A.M.R.M. and Journal, would both be produced. The Journal would be retained as the Association Journal as it is now and the A.M.R.M. would continue to be a public issue magazine.

We believe that a combined association could afford to produce both without an increase in the present membership fee of \$4 which is common to both associations.

I would prefer to get the A.M.R.M. for nothing instead of \$1.80 per year subscription rate and I cannot see why anyone else would not think the same way.

I believe I speak for all Queensland members of AMRA and SCMRA when I say that I would be against any amalgamation under which the Journal was dropped.

The fellowship aspect of model railway association is often preached in the Journal, and I subscribe to this idea, is surely a reason for amalgamation. Would not the fellowship be greater if we were all members of one association.

Mr. Gallagher obviously dislikes S.C.M.R.A. for its supposed American slant or bias. As far as I know the S.C.M.R.A. is a totally independent body, not controlled by anybody in America.

Finally could I ask Mr. Gallagher to reply as to his reasons regarding a merged A.M.R.A. - S.C.M.R.A. Association not being a genuine "Australian Model

Railway Association" and his reasons for moving to set up his own body. If he does not wish to reply in Journal, I would ask him to write to me direct and tell me his reasons.

Surely the best way for the two associations to continue to work together for the common good of model railways as Mr. Gallagher states, is as one united group.

ARTHUR ROBINSON.

Dear Sir,

Since receiving Journal 94 and reading in the Secretary's Desk of the two ex members who resigned because there were no articles in the Journal on their particular aspect of the hobby, I have given the matter considerable thought. While there is insufficient information given to establish the truth of the matter (besides no definition of particular aspect) I cannot help wondering if they merely lacked the imagination to use the material that is presented in the Journal.

In my case, my Journals are among my treasured possessions and soon will have a place of pride on my new bookshelves. Every work, including the ads., is read several times, in search of ideas - not articles on my particular aspect.

Indeed I can think of no reason why such an article should appear in the Journal and until reading the report had never given a thought to the matter.

To me the value of the Journal is in the ideas in the articles, not the articles themselves; I have never failed to find a few good ideas in each issue. Even Pop Valve has its value. One AMRA member would probably be surprised to know a 10 foolscap page satire has been written on a letter he wrote.

One illustration only of the value ideas in the Journal have been to me.



It may surprise those who have read the articles written by me and published in the Journal, to learn that my particular interest over the last six years has been base board design (not construction). The base board on which all the work done described in these articles (some as yet to be published) was most unsuitable, but I could not come up with a design to suit my specifications.

Finally the lightning struck (in the form of a sarcastic remark by my wife). This showed me the principle, but it was three ideas in the Journal that combined to make the baseboard for a layout brilliant in its conception and magnificent (for me anyhow) in its construction. The baseboard, if the sections were placed end to end, would be 57 feet long, with an area of about 120 square feet. Main line (double, single and 3 branch lines) over 100 feet, sidings 45-50 feet plus loops and crossovers. Lever frame, about 100 levers, plus numerous hand operated signals. Possible routes for passenger trains and goods, eight at least.

But if I had been looking for a "particular design" in the Journal, I would have missed the main idea which is in a photograph.

So there never was an article on my particular aspect - designing a baseboard to my specifications, and why should there be? For all I know the design might be unique in model railwaying, perhaps I could write a thesis and get a Doctorate - perhaps a few would have a good laugh and say, why didn't the silly fool do so and so and come up with a better idea. More than likely no one else would want it.

No, there are no articles on designing my baseboard, but there are plenty of articles on baseboard construction, plenty of photographs etc. with ideas in them which if looked for do form an article on it.

I wonder if this is the fault? Looking for articles on "special aspects" and not for ideas on special aspects?

On this last score, the Journal has served me well. With the work on hand and future projects based on the Journals, I will be busy for the next five years.

At the moment I haven't got a special aspect. Yesterday I did - not get any more bright ideas. This was a failure. I shifted a piece of track and got a bright idea plus 8 hours work, the result a new branch line, 2 new routes, a new loop plus two sidings.

Please no more "special aspects", I've enough to do on general aspects to keep me going. Ideas on time-tableing will be gratefully received - next year.

ERIC G. WATSON

Dear Sir,

May I offer my hearty congratulations to Peter Rogers for his latest letter offering a solution to a problem he complained about. Now don't get me wrong, I support Peter's complaint re lack of food etc. at the Sydney Exhibition, but I also see the problem faced. Too many feeds for too few cooks. Prospect Model Railway Club showed how to feed the multitude, but only up to 70 bodies. One big problem does go against Peter's suggestion of a commercial cook, "Where do the meals get served to the many?" The kitchen is rather small.

Just a few words for all members. Very often problems do exist among members. Committees, no matter how large or small, keen or hard working they be, do seem to be a little out of touch with members and unfortunately many committees become a little clique. If members have a legitimate complaint,



do not sit on it, put it in writing and also include a recommendation on how to rectify the problem and then send it to the Committee President. If this is not answered, write to Pop Valve and "blast the offender", but please do not go off half-cocked and write about heresay or what the other bloke said. Collect correct facts and only use what has been directly said to you by someone in authority.

One final word; in the May-June issue of Journal, a good reproduction of a VR "S" class steam loco was published and in the Jan-Feb issue of Australasian Model Railroad Magazine, published by sister organisation S.C.N.R.A. a good detailed reproduction of a VR "S" class steam loco was published. May I suggest that the

plan in Journal was wasteful and foolish, for no doubt the draftsman spent many hours on this plan. As the "S" class plan exists why not draw a different loco or are we so short of prototype locomotives, the duplication is unnecessary. This country lacks well detailed accurate plans (such as both "S" class plans) and I believe it is futile to copy another magazine's ideas so closely as Journal has done. Why not co-ordinate with each other, Editor to Editor and try to give us two distinctly different magazines.

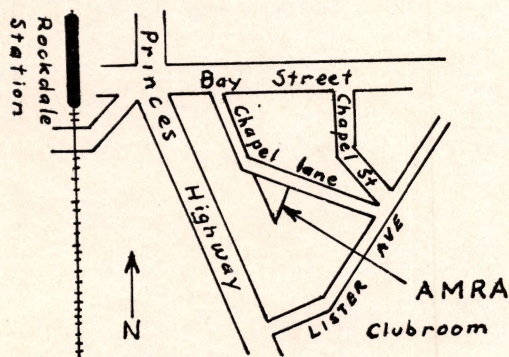
BOB GALLAGHER

The publication of the VR "S" class loco plan was proposed early 1971, but voluntary work is performed only in spare time, hence the delay. Publisher.

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## Branch Reports

### NEW SOUTH WALES.



Members have enjoyed the various displays of scenery, layout operation and an auction at the clubrooms recently while Ron Gray organised a visit to the Glassworks, "Thanks Ron, a beaut trip", is conveyed by participating members.

The N Gauge layout is nearing completion, while plans and preparations are well in hand to enlarge the whole

system. Meetings have fallen off a little in attendance lately so N gaugers rally-round, support your cause or the Giant Killing gauge may have to be buried.

Production from the Modelling Clinic has come to the point where chassis are running all over the place. Very soon the bodies should be finished to look like a NSW F 351 class. Members are always invited to attend these meetings and participate in the projects. Future plans are for a railmotor - probably No. 2 - "Kathleen".

The branch attended the Prospect Model Railway Exhibition at Blacktown early in June, displaying an information board on the Association, the Information Stand and the AMRA Narrow Gauge. The small group of members who staffed the stand are thanked for this participation especially Simon Wild who travelled over 70 miles by public transport to help the branch. A small distance if one is really interested?



Future Program.September.

- Sat. 2nd Working Bee - Exhibition equipment.  
 Fri. 8th Modelling Clinici.  
 Sat. 9th N gauge group.  
 Sat. 16th Layout operation.  
 Fri. 22nd Working Bee - Exhibition equipment.  
 Fri. 29th Setting-up day at Exhibition.  
 Sat. 30th ) THE SYDNEY MODEL RAILWAY  
 to Mon. 2nd ) EXHIBITION LOWER TOWN HALL  
 October. ) SYDNEY.

October.

- Sat. 7th Post Exhibition Clean-Up.  
 Rockdale.  
 Fri. 13th Modelling Clinic.  
 Sat. 14th N gauge group.  
 Sat. 21st Visit to Sydney Live Steam Society - Darvel Park, Ryde.  
 Fri. 27th Federal Annual General Meeting.

Members will notice our 10th Annual Exhibition is on, so when you receive the letter from the Roster Clerk, reply quickly to help the branch and AMRA.

BOB GALLAGHER.

WESTERN AUSTRALIA.

Yes folks, look who is at last putting in their 20¢ worth, we have finally made it. The first general meeting of the newly found branch of AMRA in W.A. was held in the Ross Memorial Hall Hay Street, West Perth, on the 5th June. Two meetings had been held prior to this in the same hall, one on 17th April when the idea first came up to form a branch in this state, and our first official meeting on 1st May when the branch was formed. Many thanks must go to Jeff Pearson, for it was he who put all the ground work into getting this new branch past the starting signal and onto the right track. Mal

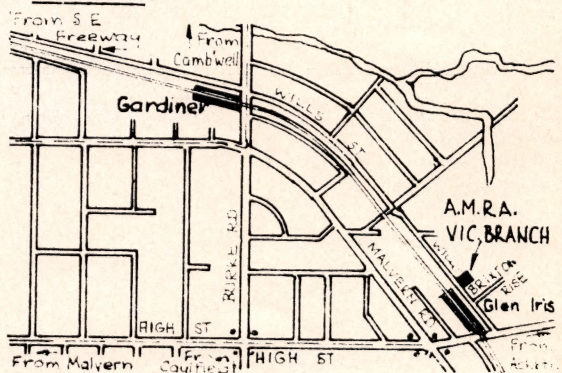
Baker, well how can we thank you for being kind enough to come over from Victoria and take the chair at our first official meeting when office bearers were elected? We in W.A. will always think of Mal as just being a little part of our branch.

Our first general meeting was a great success with members bringing along their favourite loco and giving us a short talk on some of the history of the prototype. This went over so well that it will become a regular occurrence in future.

An auction will be held at our October meeting. Any items that any member has laying around at home that are no longer of any use to him can be brought along. He may donate the sale of it to the branch, or have it sold on commission.

Our branch strength is now in the vicinity of 60 members, of which 34 turned up for the 6th June meeting. This was a good effort as we were not sure where the meeting was to be held until the last moment. Country members we would love to see you at our meetings when in Perth. If you require any information phone our Branch Secretary, Graham Makay on 946.543 evenings only.

ALEX. ROGERS

VICTORIA.

Meeting night - 2nd Thursday at 8 p.m.



Editorial (cont'd)

Boydell asked, through Pop Valve, if anyone would care to write an article on this subject. Since then an offer of \$20 has been made to the Association to be paid to the writer of such an article. Perhaps we have a member who is qualified to do so, or perhaps you know someone who would be willing to undertake the task.

1\*\*\*\*\*

QUEANBEYAN TO CAPTAINS FLAT  
(GHOST TOWN) RAILWAY LINE

This line is still in existence, but due to the closure of the mines at Captains Flat, services no longer run. Vandals have lost no time, and the station is a sorry mess. Broken windows and fixtures, and the usual obscene graffiti are the evidence of their work.

The station was unusual in that it was at ground level, while the island platform was the usual elevated structure. The goods yard and goods shed are still in existence. The signals and various lineside structures have been dismantled. From all accounts much of the dismantling was by souvenir hunters.

The last known use of the line was for shots of the "Ned Kelly" film, most of the action being shot around the Flat. A 12 class loco was used, together with a condemned cattle wagon with a mock-up side. The action can be seen in the film, which is now showing, but if you missed it, no doubt you will be able to see it in 20 or 30 years time on our T.V.

The line is still in fair order, and politics play a large part in its retention.

P. ROGERS.

"THE RIGHT TRACK TO LEISURE" IS THE 10TH

# SYDNEY MODEL RAILWAY EXHIBITION

· SYDNEY TOWN HALL ·

SEPTEMBER 30 TH

OCTOBER 1ST

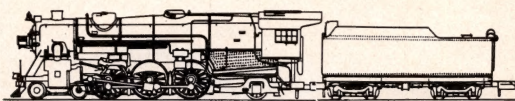
OCTOBER 2ND



# ARNOLD *rapido* N Gauge

## SOME ITEMS FROM THE RANGE -

0211 Nthn. Pacific FP9 Diesel	\$19-95
0225 Modern German 0-6-0 Tank	\$17-95
0226 USA Old Time 0-6-0 Switcher w/tender, Green	\$21-50
0227 USA Modern 0-6-0 Switcher w/tender, Black	\$21-50
0228S USA Pacific 4-6-2 w/ tender, Southern, Green	\$37-95
0228F USA Pacific 4-6-2 w/tender, Santa Fe, Black	\$37-95
0229B USA Hudson 4-6-4 w/tender, B. & O., Black	\$36-95
0236 TEE Electric Loco, Red & Cream	\$29-95
0253 Bavarian Pacific 4-6-2, S 3/5, w/tender, Green	\$42-50
0271C Erie Lackawanna GP7 Diesel	\$19-50
0271S Sthn. Pacific GP7 Diesel	\$19-50
0273G Great Northern GP 30 Diesel	\$19-50
0273S SOO GP30 Diesel Electric	\$19-50
0274W Santa Fe FA2 Alco Bo+Bo Diesel	\$18.75
0294 3-car 1972 Olympic Train E-20	\$59.95.



0228



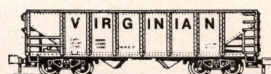
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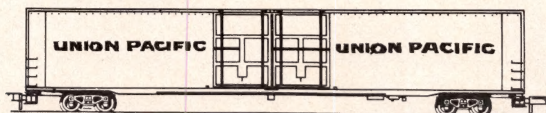
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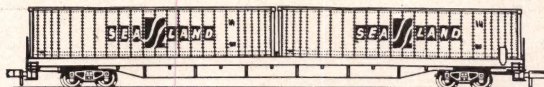
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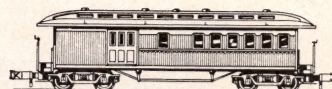
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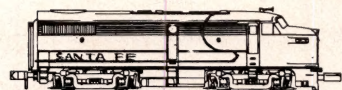
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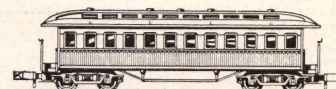
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0273



0274



0362

0301 4-wheel Local Coach, end platforms, Green	\$3-50
0303 4-wheel Coach, 3rd, end platforms, clerestory roof, Green, for branch line service	\$3-50
0356C Gallery Car (Double-Decker) C. & N.W.	\$5-95
0357C Push Pull Headend Car C. & N. W.	\$9-95
0357S Push Pull Headend Car, Sthn Pacific	\$9-95
0361 Shorty Combine, Western & Atlantic, Cream & Green	\$3-95
0362 Shorty Coach, Western & Atlantic, Cream & Green	\$3-95
0363 Shorty Coach, Union Pacific, Grey & Red	\$3-95
0364 Shorty Combine, Union Pacific, Cream & Green	\$3-95
0381 TEE Compartment Coach 1st, Red & Cream	\$4-75
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0383 TEE Bar-lounge Car 1st, Red & Cream	\$4-75
0384 TEE Dining Car, Red & Cream	\$4-75
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0406T USA Twin Container Car w/containers, Sea-Land	\$4-95

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